

## CLAIMS:

1. A piezoelectric dispensing apparatus including:
  - a removable reservoir for containing liquid for dispensing from the apparatus;
  - a piezoelectric dispensing tube defining a bore in fluid communication with the reservoir; and

means for applying a vacuum and/or pressure to the contents of the reservoir when the reservoir is located in the apparatus.
2. A piezoelectric dispensing apparatus as claimed in claim 1 wherein the reservoir defines an open top to allow liquids to be poured into the reservoir.
- 10 3. A piezoelectric dispensing apparatus as claimed in claim 2 wherein the top of the reservoir is flared outwardly.
4. A piezoelectric dispensing apparatus as claimed in claim 3 wherein the means for applying a vacuum and/or pressure to the contents of the reservoir when the reservoir is located in the apparatus includes a plunger which is shaped and configured 15 to abut with and seal the top of the reservoir.
5. A piezoelectric dispensing apparatus as claimed in claim 4 wherein the plunger defines a through bore to permit the application of vacuum and or pressure to the reagent vessel through the bore.
6. A piezoelectric dispensing apparatus as claimed in any one of claims 4 to 5 20 including a seat for receiving the removable reservoir and means for moving the plunger up and down towards and away from the seat.
7. A reservoir assembly for containing liquid for dispensing from a piezoelectric dispensing device, the piezoelectric dispensing device including a dispensing end and a non-dispensing end, characterised by the assembly including a first and a second filter 25 means.
8. A reservoir assembly as claimed in claim 7 wherein the second filter has a pore size smaller than the pore size of the first filter
9. A reservoir assembly as claimed in claim 7 or claim 8 wherein the second filter is located between the reservoir and the non-dispensing end of the piezoelectric 30 dispensing tube to prevent particulate matter collected on the underside of the reservoir from entering the tube.
10. A piezoelectric dispensing device including:
  - a reservoir for containing liquid for dispensing from the apparatus defining an open top and an outlet at the base of the reservoir;
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  - a filter means for filtering liquids passing through the outlet;
  - a piezoelectric dispensing tube defining a bore;

means for removably attaching the piezoelectric dispensing tube in fluid communication with the reservoir; characterised by

a closure means disposed at the base of the reservoir which closes the outlet of the reservoir until the reservoir is attached to a removable secondary filter attached to a  
5 piezoelectric dispensing tube.

11. A piezoelectric dispensing device as claimed in claim 10 wherein the base of the reservoir defines an annular foot portion on which the reservoir may be rested with the valve spaced from the surface on which the foot rests.

12. A piezoelectric dispensing device as claimed in claim 11 wherein the reservoir  
10 defines a handle.

13. A piezoelectric dispensing device as claimed in any one of claims 10 to 12 wherein the closure means is a septum.

14. A piezoelectric dispensing device as claimed in any one of claims 10 to 12 wherein the closure means is a valve.

15 15. A piezoelectric dispensing device including:

a reservoir for containing liquid for dispensing from the device defining an open top and an outlet at the base of the reservoir;

a filter extending across the outlet of the reservoir;

20 a secondary filter assembly attachable to the base of the reservoir, the secondary filter assembly defining a bore which is in fluid communication with the reservoir when the secondary filter assembly is attached thereto, the secondary filter assembly defining means for removably attaching the piezoelectric dispensing tube in fluid communication with the bore; characterised by

means for closing the outlet of the reservoir until the reservoir is attached to the  
25 removable secondary filter assembly.

16. A piezoelectric dispensing device as claimed in claim 15 further including a piezoelectric dispensing tube defining a bore attached to the outlet of the secondary filter assembly.

17. A piezoelectric dispensing device as claimed in claim 15 or 14 wherein the  
30 means for closing the outlet of the reservoir is a valve.

18. A piezoelectric dispensing device as claimed in claim 12 or 16 wherein the means for closing the outlet of the reservoir are a septum and wherein a hollow needle for piercing the septum projects from the secondary filter assembly.

19. A piezoelectric dispensing apparatus including a piezoelectric dispensing device  
35 as claimed in any one of claims 10 to 19 further including a seat means for receiving the removable reservoir in the apparatus means for applying a vacuum and/or pressure

- to the contents of the reservoir when the reservoir is located in the apparatus said means including a plunger which is shaped and configured to abut with and seal the top of the reservoir and which defines a through bore to permit the application of vacuum and or pressure to the reagent vessel through the bore and further including and means for
- 5 moving the plunger up and down towards and away from the seat.
20. A method of dispensing fluid from a piezoelectric tube assembly including a piezoelectric tube having a dispensing end and a non dispensing end comprising dispensing the fluid from a reservoir disposed in fluid communication with the non-dispensing end of the piezoelectric tube.